14. The system of claim 4, wherein the exposure chamber includes a plurality of compartments, each of which can house an aquatic organism.

15. The system of claim 4, wherein the aquatic organism is a fish.

16. A portable apparatus for generating behavioral signals of aquatic organisms indicative of water quality, comprising:

a first portable housing including a water inlet;

an exposure chamber disposed within said first portable housing for housing an aquatic organism, said exposure chamber having an inlet and an outlet;

an electrode disposed within said exposure chamber for sensing and quantifying ventilatory behavior and body movement of said aquatic organism into data and outputting said data as a behavioral signal;

an amplifier for amplifying the behavioral signal; and

a recirculation unit that circulates water from the outlet of said exposure chamber, through a fluid flow path and to the inlet of said exposure chamber, said recirculation unit including:

a water reservoir in fluid communication with said exposure chamber, the water reservoir including an inlet and an outlet;

a water quality sensor in fluid communication with said water reservoir and said exposure chamber, said water quality sensor being pivotally mounted to said first portable housing;

a pump disposed between said water reservoir and said water quality sensor to assist fluid flow between from the water reservoir to the water quality sensor.

17. The system of claim 16 wherein said water reservoir and said pump are disposed within said first portable housing.

18. The system of claim 17 further comprising a second portable housing disposed contiguous to said first portable housing, said amplifier being disposed in said second portable housing.

19. The system of claim 18 further comprising a bracket mounted to said first and second portable housings, said bracket including a plate and an adjustable clamp pivotally mounted to the plate configured to hold said water quality sensor.

* * * * *